

State of Illinois
Office of Resource Conservation

Final Report to USFWS – March 2020

Project Award Number: F11AF00198, T-76-D-1

Project Title: Public Land Native Wildlife Prairie / Savanna Habitat Restoration Project

Objectives (from grant proposal):

General Summary

The project was awarded in July 2011 and continued through December 2019. The grant was amended four times (Table 1). The grant approval letter, and subsequent amendment approvals, can be viewed in the Appendix.

Table 1. T-76-D-1 was amended 4 times between 2011-2019.

GRANT AMENDMENT HISTORY					
Amendment #	Date	Federal Dollars	Sites Added	Grant Extension	Approach Modified
#1	10/12/2012	No	No	No	Yes
#2	09/09/2014	\$275,000.00	Green River SWA Hurricane Creek SHA Cox Creek LWR	06/30/18	No
#3	09/06/2016	\$400,000.00	Twelve Mile Prairie	No	No
#4	07/11/2018	No	No	12/30/18	No

Table 2 is a breakdown of the federal and state costs of the grant. A full report of the expenditures will be forthcoming from IDNR’s Federal Aid Program.

Table 2. Total of Federal Funds Obligated to the project and the State of Illinois’ Cost Share/Match requirement.

	Federal Program and Sub-Account Code			Totals
	5624			
Federal Funds Obligated	\$1,389,335.00			\$1,389,335.00
Federal Funds SAF*	\$0.00			\$0.00
Federal Share Approved	\$1,389,335.00			\$1,389,335.00
Recipient Cost Share/Match	\$748,103.00			\$748,103.00
Program Income	\$0.00			\$0.00
Total Approved Budget	\$2,137,438.00			\$2,137,438.00

Figure 1. Statewide Public Lands Native Prairie/Savanna Wildlife Habitat Restoration Sites.



During the last reporting period of the grant, between July 2019 through December 2019, 1,437 acres of grassland /prairie, and 238 acres of savanna habitats and their functional equivalents, have been maintained and enhanced / developed (Table 4). This included spending federal dollars, state match dollars, and man hours on the ground.

Table 4. The final progress report form covering July 2019 through December 2019 for T-76-D-1 Statewide Public Lands Prairie / Savanna Wildlife Habitat Restoration Project

Management Actions	Units	Prairie / Grassland Units Accomplished	Savanna Units Accomplished	Total Units Accomplished
Prescribed Fire				
Firelanes established / maintained	miles	15.84	6.84	22.68
Prescribed fire	acres	262.5	0	262.5
Invasive Woody Plant Control				
Mechanical removal	acres	150	70	220
Herbicide treatments	acres	179	100.8	279.8
Invasive Exotic Plant Control				
Mechanical Removal	acres	14.3	7	21.3
Herbicide treatments	acres	657.3	60.5	717.8
Habitat Creation/ Reconstruction/Enhancement				
Tree plantings (incl Tree & Shrub plantings)	acres	0	0	0
Shrub only plantings	acres	0	0	0
Herbaceous plantings	acres	170.25	0	170.25
Vegetation maintainance (e.g. mowing CSG or b/t planted trees, hi-mow of prairie plantings)	acres	4.1	0	4.1
Prescribed grazing	acres	0	0	0
Erosion / Sediment Control				
Erosion/Sediment control	acres affected	0	0	0
Boundary Protection / Fencing				
Boundary protection/Fencing	miles	0	0	0
Hydrology Restoration				
Ephemeral pools created	each	5	0	5
Surface / groundwater hydrologic restoration	acres affected	0	0	0
Project Admin				
Project administration	Office days	0	2	2
TOTAL ACRES		1437.45	238.3	1675.75

Since inception of this project on 1 July 2011, 50,050 (48,372 + 1,676) acres have been maintained and enhanced / developed for prairie, grassland, and savanna wildlife on 10 IL DNR sites and satellites statewide, far exceeding the goal of 24,149 acres (Table 5)

Table 5. Total grassland and savanna acres managed from June 2011 through December 2019 for T-76-D-1 Statewide Public Lands Prairie / Savanna Wildlife Habitat Restoration Project

Management Actions	Units	Prairie / Grassland Units Accomplished	Savanna Units Accomplished	Total Units Accomplished
Prescribed Fire				
Firelanes established / maintained	miles	298.33	180.08	478.41
Prescribed fire	acres	24299.4	3154	27453.4
Invasive Woody Plant Control		0	0	
Mechanical removal	acres	859.5	366.1	1225.6
Herbicide treatments	acres	5597.5	212.8	5810.3
Invasive Exotic Plant Control		0	0	
Mechanical Removal	acres	415.6	28.5	444.1
Herbicide treatments	acres	2960.6	259	3219.6
Habitat Creation/ Reconstruction/Enhancement		0	0	
Tree plantings (incl Tree & Shrub plantings)	acres	0	8.1	8.1
Shrub only plantings	acres	6	0	6
Herbaceous plantings	acres	999.75	0	999.75
Vegetation maintainance (e.g. mowing CSG or b/t planted trees, hi-mow of prairie plantings)	acres	9788.1	0	9788.1
Prescribed grazing	acres	1002	0	1002
Erosion / Sediment Control		0	0	
Erosion/Sediment control	acres affected	28	0	28
Boundary Protection / Fencing		0	0	
Boundary protection/Fencing	miles	201.25	0	201.25
Hydrology Restoration		0	0	
Ephemeral pools created	each	9	0	9
Surface / groundwater hydrologic restoration	acres affected	66	0	66
Project Admin		0	0	
Project administration	Office days	284.7	62.7	347.4
TOTAL ACRES		46022.45	4028.5	50050.95

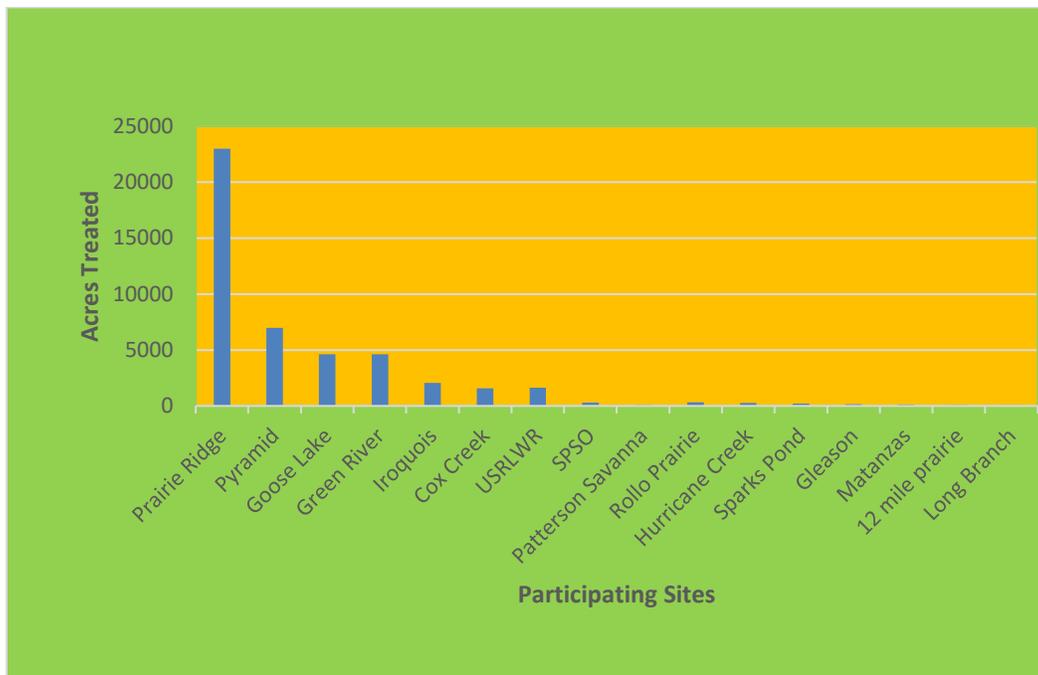
Table 5. Acres of management accomplished, by years, over the duration of the granting period, June 2011 through December 2019.

Management Actions	TOTAL UNITS ACCOMPLISHED 2011 - 2019									
	Units	2012	2013	2014	2015	2016	2017	2018	2019	2020
Prescribed Fire										
Firelanes established / maintained	miles	55.4	42.4	182.9	54.1	41.93	30.39	28.89	19.72	22.68
Prescribed fire	acres	6520	3308	1125	4845	5446	1373.5	2078	2495.4	262.5
Invasive Woody Plant Control										
Mechanical removal	acres	17	260.5	166	164	31.5	43	113	210.6	220
Herbicide treatments	acres	508	1138.5	1306	2226	65.5	35.5	110	141	279.8
Invasive Exotic Plant Control										
Mechanical Removal	acres	0	3	3.5	312	6	21.5	13	63.8	21.3
Herbicide treatments		436	213	1182	181	61.5	119.4	145.8	163.1	717.8
Habitat Creation/Reconstruction/Enhancement										
Tree plantings (incl Tree & Shrub plantings)	acres	0	0	0.1	0	0	0	0	8	0
Shrub only plantings	acres	1	5	0	0	0	0	0	0	0
Herbaceous plantings	acres	241	134	104	254	0	0	0	96.5	170.25
Vegetation maintainance (e.g. mowing CSG or b/t planted trees, hi-mow of prairie plantings)	acres	2541	2158	2568	2517	0	0	0	0	4.1
Prescribed grazing	acres	0	486	86	86	86	86	86	86	0
Erosion/Sediment Control										
Erosion/Sediment control	acres	2	26	0	0	0	0	0	0	0
Boundary Protection/Fencing										
Boundary protection/Fencing	miles	62.5	49.5	30.75	55	0	0	0	3.5	0
Hydrology Restoration										
Ephemeral pools created	per unit	0	4	0	0	0	0	0	0	5
Surface / groundwater hydrologic restoration	acres	40	0	0	26	0	0	0	0	0
Project Administration										
Project administration	day	68.4	90.5	84	37	16.5	15	9	25	2
TOTAL ACRES		10,306.0	7,732.0	6,540.6	10,611.0	5,696.5	1,678.9	2,545.8	3,264.4	1,675.8

Finally, the number of acres treated by year can be viewed in Table 5. Early in the granting period between 5,000 and 10,000 acres were being treated annually. This was in part aided by Prairie Ridge State Natural completing vegetation maintenance mowing on nearly 2,500 acres a year to provide the best habitat for grassland birds. In 2015, Prairie Ridge State Natural Area was awarded their own State Wildlife Grant (T-98-D-1) so all that mowing was used as match for that grant. This was also the first of three years in which the State of Illinois went without a budget. Therefore, State funds were not available for projects, nor could we spend any of the federal funds for which we would later be reimbursed. Therefore, all work completed between 2015 and 2018 was in-kind and used as state match. Fiscal reporting year 2020 had the fewest acres treated (~1,676) but it only accounts for 6 months of reporting (July through December).

Prairie Ridge State Natural Area had the most acres treated among the sites, accounting for 46% of all acres treated. The next 9 sites received 25,779 acres treated (51%). These include some of the state’s largest remnant prairies, including Goose Lake Prairie State Natural Area and Green River Fish and Wildlife Area. While the remaining 7 sites only account for 4% of the acres treated, they were nonetheless significant. Gleason Nature Preserve had 8 acres of woody vegetation removed to reopen a dune that supports the states only population of silvery bladderpod. And Long Branch Prairie Nature Preserve received fire on the highest quality portion of the site for the first time in two decades. At Sparks Pond Land and Water Reserve, 17 acres of black locust and other less desirable woody species were eliminated from a former grassland. And finally, brome was converted to dry sand prairie, and exotic woody vegetation was removed at Rollo Prairie Addition Land and Water Reserve.

Figure 2. The numbers of combined grassland and savanna acres treated per site.

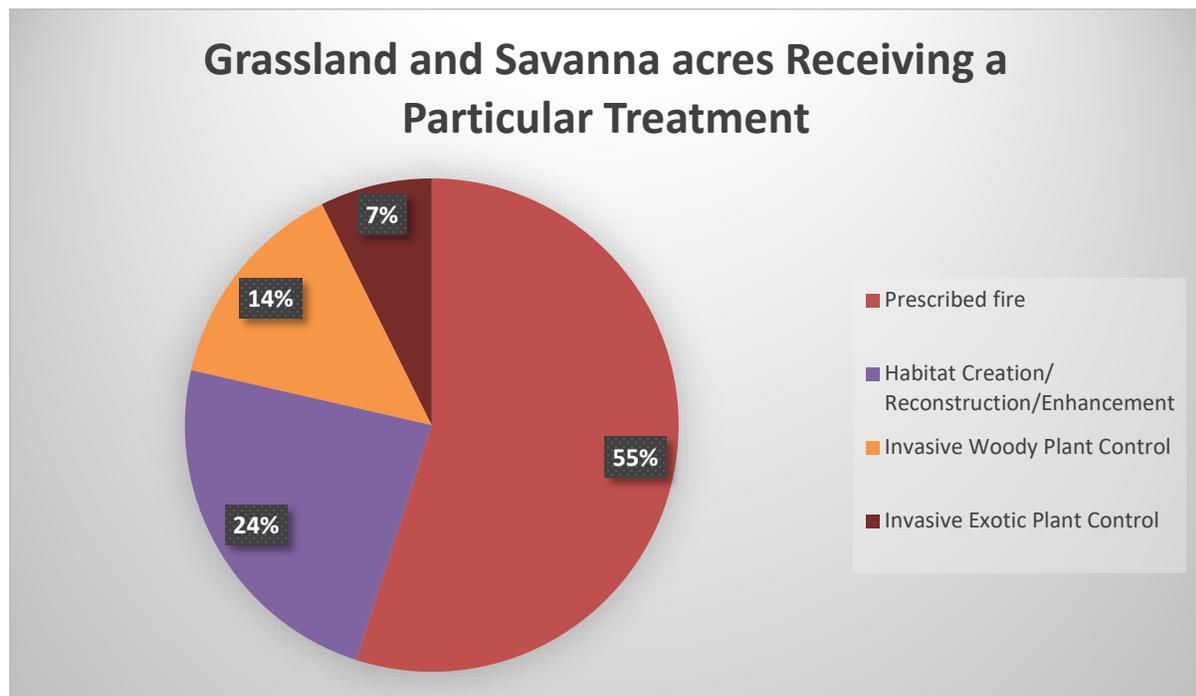


The 50,050 treated acres treated received approved management types, including prescribed fire, woody invasive species control, invasive exotic plant control, habitat creation,

erosion control, boundary protection and hydrology restoration that were approved activities in the grant proposal and agreement.

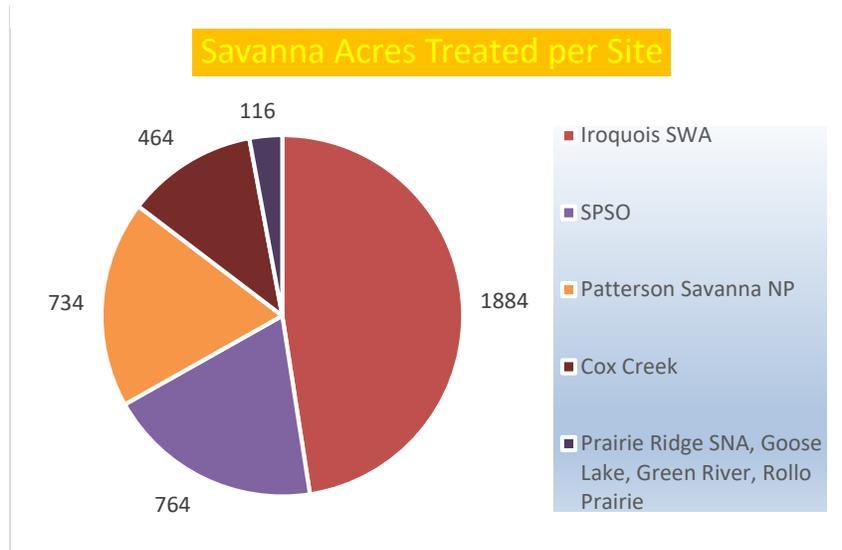
Prescribed fire was the most frequently used treatment for grassland and savannas. Over the course of the grant, 27,453 acres received at least one prescribed fire, accounting for 55% of all acres treated (Figure 3). All of these “fire” acres, and the manpower necessary to complete them, provided state match for the grant. More than 24% (11,000) of acres received "Habitat Creation/Reconstruction/Enhancement," which included 1000 acres of prescribed grazing and nearly 10,000 acres of grassland mowing. Grassland mowing is important for reinvigorating cool season grasses, preparation for herbicide treatment, maintaining the correct structure for grassland birds, setting back tall goldenrod, and is an alternative to prescribed burning when it can't be completed. Finally, it was probably not uncommon to see the same acre receive multiple treatments, ie prescribed burned in one year, treated for woody vegetation in the 5th year and potentially mowed in the final year. However, this level of detail was not tracked.

Figure 3. A breakdown on the amount of each type of management conducted over the life of the granting period at selected sites.



Treating woody native and invasive species accounted for another 21% (10,669) of the acres treated. This included native and exotics shrubs and trees that have invaded once treeless grasslands (trembling aspen, black locust, pin oak, tree of heaven, autumn olive, bush honeysuckle, and gray dogwood) as well as herbaceous exotic species (birds foot trefoil, common teasel, and reed canary grass). Some of these acres undoubtedly were treated twice as a follow-up treatment.

Figure 4. Sites receiving the most management in savanna communities.



Most managed acres occurred on grassland units (92%). The remaining 8% of the treated acres (~4028) were accomplished in savanna habitats. Iroquois County SWA, which includes Hooper Branch Savanna Nature Preserve, received nearly half of all treatment units. Sand Prairie Scrub Oak Nature Preserve (SPSO), in Mason County, had 764 acres treated, and Patterson Savanna Nature Preserve had 734 acres treated. These three sites contain some of the most significant remaining savannas in the state, and thus received 84% of the total savanna management.

There were also 478 miles of firebreaks created or maintained over the granting period (Table 5). Because firebreaks were measured in miles, they were not counted as part of the total acres managed. There were several projects that included contractors installing new or maintaining firebreaks. Similarly, over 200 miles of boundaries were maintained. In some cases, new signs were erected, and in others, surveys were completed to clear up any confusion. These acres were not counted as acres managed.

Finally, when compiling this final report, I realized that some of the yearly reporting numbers were not compiled consistently. It wasn't until after year one that grazing numbers could be reported. In other years, miles of firebreaks were counted as acres treated. Table 6 identifies the difference in yearly reported acres (in the annual report) and the corrected numbers that are used for this final report. All annual reports have been adjusted.

Table 6. Revised treated acres from previous annual reports.

Annual Reporting Totals (Acres)		
Fiscal Year Report	Originally Reported	Revised
FY12	10,306	10,306
FY13	7,646	7,732
FY14	6,454	6,540
FY15	10,525	10,611
FY16	5,633	5,696
FY17	1,725	1,678
FY18	2,460	2,545
FY19	3,178	3,264
FY20	N/A	N/A
TOTAL ACRES	49,602	50,047